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"NEC TENUI PENNA."

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B. O. COWLING, A. M., M. D., and L. P. YANDELL, M. D.
EDITORS.

THE appointment of Dr. Wm. H. Galt by the National Board of Health as Sanitary Inspector for this locality gives immense satisfaction. Whatever criticisms may have been launched at the Board elsewhere, we may be certain that in Kentucky its representative will do every thing for its popularity. Dr. Galt has an exceedingly important work to perform. We have all along declared that Louisville is the most valuable point in all the Union for the study of yellow fever, simply from the fact that the number of cases which occurred here during the prevalence of the epidemic last year were sufficient to illustrate the phases of the disease, and not so numerous as to confound their individuality. It is of the most absolute importance, as we think, to humanity and science that trustworthy data of the outbreak of 1878 in Louisville be carefully collated; and to effect this it must be done while the matter is fresh in the minds of witnesses. Prof. Holland, of the Kentucky State Board, has already entered this important field, and we are glad to know that he will find such important aid from the representative of the National Board. The immediate work of the new Sanitary Inspector will be to endeavor to bring the state, municipal, and national boards in harmony of action. The utmost cordiality exists between the members of the several organizations, and we have no doubt that they will soon reduce to unison any differences which may have arisen heretofore in their independent action.

VOL. VIII.—No. 9

THE paper presented by Prof. Holland in this week's issue of the News, on the Water-supply of Louisville, will be found an unusually clear and satisfactory exposition of one of the most important of sanitary questions. It may be of small importance to the world at large, perhaps, of what quality is the water which the inhabitants of Louisville consume; but when it is remembered that what is true for Louisville must also be true for the many thousands who live along the great water-courses, especially the Ohio and Mississippi, then the question is one for wide consideration. There is just one point to be considered in this connection on which Professor Holland has not as yet fully touched, and it is this: In spite of the turbid stream which the Louisville Water Company turns on the inhabitants of the town, loaded with mud and swarming with bacteria, the health of the city is remarkable even in comparison with the most healthful communities. Therefore must it be pondered how much do bacteria and mud contribute to disease.

IT would appear that the backbone of the fever were broken so far as the country at large is concerned. Here we are at the next to the last day of summer, and there has been no spread of the disease worth mentioning beyond the original points involved. Even in those places the death-rate has been very small. Two hundred would probably cover the list at Memphis. Last year the appearance of frost was unusually delayed throughout the South and West. We may well hope for its much earlier coming this year, and with it another long respite from the fever.

Original.**THE WATER-SUPPLY OF LOUISVILLE—A HYGIENIC INVESTIGATION.**

BY J. W. HOLLAND, M. D.

Member of Kentucky State Board of Health.

In the course of a special inquiry to which this subject was incidental I discovered certain facts of a nature so surprising and of such general concern as to deserve immediate official notice. In order to answer the question, Is the water-supply of Louisville pure and wholesome? samples were examined from different sources. The well at the northwest corner of Eleventh Street and Maple having been under suspicion, was selected, and for comparison analysis was made of the very palatable water of a private well of about the same depth half a mile away and secure from sewage contamination. The water of the Ohio, as served to the citizens of Louisville by the Louisville Water Company, and made muddy and suspicious by recent rains, was also subjected to analysis.

The tabular statement given below is in every case the mean of several observations. The river-water taken from faucets in different parts of the city gave a uniform result as stated below. The methods of analysis were those of Wanklyn,* and such as are employed by the water-supply commission of Great Britain. Every kind of evidence bearing upon the question has been carefully collated, and by resort to checks and balances known to chemists the figures were made sure. To make the statement less technical, the hygienic classification of drinking-waters adopted by Parkes,† and based upon such facts as are generally admitted, is first given as a standard.

It will be seen that our deep well-waters are pure and wholesome in every particular except that of least importance, the mineral constituents. Our alluvial soil, while destroying all organic matter, impregnates the water that filters through it with mineral salts to the extent of about fifty grains in the gallon. This is enough to make it very hard. Even after boiling there is left enough to equal in hardness ten grains of carbonate of lime. It is asserted on defective evidence that very hard waters favor calculous disorders. Hostlers object to it on the ground that through derangement of digestion it makes the horse's coat "staring and

* Water Analysis, 4th edition.

† Practical Hygiene, 5th edition.

Character.	Clearness.	Suspended Matter.	Color.	Smell.	Dissolved Solids at Red Heat.	Chlorine.	Hardness Fixed.	Nitrites.	Oxygen for Org. Carbon.	Free Ammonia.	Albuminoid Ammonia.
Pure and wholesome	transparent	none.....	colorless....	none.....	under 8.. not black.....	under 1..	2	absent.....	under 0.07	under 0.0014	under 0.0056
Usable.....	{ transparent	easily sub-sides.....	slight green or colorless	none.....	under 30 blacken a little.....	under 3..	under 4..	absent.....	under 0.105	under 0.0035	under 0.0070
Suspicious.....	{ turbid.....	considerable,	yellowish....	none.....	above 30 blacken and fumes above 3..	above 3..	above 4..	present.....	above 0.105	above 0.0035	above 0.0070
Impure.....	{ turbid after large coarse filter	any marked yellow.....	odor.....	odor.....	above 50 black, with fumes, above 6..	above 6..	marked.....	above 0.14	above 0.0070	above 0.0105	
Private well.....	transparent	none.....	none.....	none.....	50. Y white.....	4.90	10.5	absent.....	0.00	0.00	0.00
Well at 11th and Maple.	transparent	none.....	none.....	none.....	43. F white.....	4.26	10.5	absent.....	0.00	0.00	0.00
Louisville Water Co.	{ turbid after large coarse filter	odor when warm.....	yellow.....	warmed.....	17.1 blacken.....	0.42	2.97	present 0.035	0.08	0.036	0.0392

ANALYSIS PER GALLON.

STANDARD OF IMPURE WATER: Bacteria of any kind, fungy, vegetable and animal forms of low type.
 PRIVATE WELL: A few fibers of wood as sediment.
 WELL AT ELEVENTH AND MAPLE STREETS: Scanty, minute masses of decaying wood, carrying occasional higher infusoria.
 LOUISVILLE WATER COMPANY: Swarming with bacteria.

rough."* Still it would not be fair on account of hardness to degrade it further than the standard of "usable" drinking-water.

When the record of the river-water is studied it is found bad on every count but that of hardness. It is a soft water, and, after freeing it from suspended matter, fit for laundry purposes or cooking; but by the ablest and fairest sanitarians in its present state it would be condemned as unfit to drink. It is turbid after coarse filtration, which nearly always is the naked-eye character of organic infusions alive with minute animal or vegetable forms. It is muddy, and therefore disgusting to a sensitive person. When warmed it has a distinct odor. Its residue (after boiling off the water) blackens or chars. Nitrites, the innocent result of organic contamination, are present. There is organic carbon more than is found in pure water. The most significant chemical tests, according to the reports of the British Water-supply Commission, are those giving the quantity of free and albuminoid ammonia. The figures denote impurity in this respect. The last and most unmistakable sign of impurity is the appearance under the microscope of bacteria.

What is the source of the organic matter? The very small proportion of chlorides indicates that it is not of animal origin. Any amount of animal excreta sufficient to contaminate would certainly run up the score of chlorides. It is a satisfaction to find this positive evidence that the refuse and sewage of the cities and towns above us have been made innocuous by subsidence, transformation, and dilution. It is not at all likely for many generations that the sewage of the upper Ohio will seriously affect its constitution here, or that specific diseases will be communicated by it. But it will be at once conceded that according to common experience the river-water is now, after the summer rains, decidedly impure. Doubtless the extensive water-shed of timber lands which it drains furnishes all along its banks quantum after quantum of decaying vegetable matter washed down and dissolved. Along with this come the microscopic forms—the microzymes, the fungi, and the algae. These fermentations are obnoxious; they tend to set up their own fermentation instead of that of normal digestion. The digestive tract revolts at their presence. If a full tumbler of this muddy water, undiluted by ice, be taken on an empty stomach, it will generally act urgently on the

bowels in half an hour. Those unaccustomed to using it complain frequently of this quality. That complaint is not more general can be accounted for in several ways. The well-to-do either filter it or dilute it with melted ice. Many, especially the poor, use well-water for drinking, and very few take the muddy water with enough gusto to get the effects of free potations. We instinctively use the least amount needed to slake thirst. The general impression of its wholesomeness has blinded ordinary observation to effects as insidious if not as certain as those of foul air and unwholesome food. It is deemed highly probable that in proportion to the accuracy and completeness of the test upon the living person will be the evidence of harm resulting from the daily and frequent use of water classed as impure.

In a series of experiments instituted for the purpose of correcting these objectionable characters, I found that boiling killed the low forms of life, but that filtration through the ordinary filters sold by dealers removed the clay and about forty per cent of the organic matter, leaving it somewhat milky, with numbers of bacteria still remaining. At my solicitation a dealer packed the charcoal in a filter closer than usual, and I therewith procured a specimen entirely free from suspended matter. The trouble in close packing comes from the length of time required for the process of filtration; the water passes very slowly from a fine charcoal filter.

To the Board of Health of Louisville, and through it to the Louisville Water Company, I would quote the following from a standard work which stands in no need of commendation: *

The waters belonging to the first and second class (pure and usable) may be used; those of the third or suspicious class should be well filtered before distribution, and, if possible, should be again filtered in the house. The waters of the fourth class should be entirely disused, or only used when a better source is not procurable, and means of purification should then be systematically resorted to.

The consumer is advised that until the water company fulfills a reasonable expectation by filtering the muddy water now served, and thus furnishing it in the purest attainable state, it would be best to use the public wells for drinking purposes. If the river-water must be used, either boil it or filter and re-filter it, or dilute and chill it with melting ice. The surgeon who pretends to practice the antiseptic system should not dress a wound with it until it is well boiled.

* Parkes's Practical Hygiene.

MANAGEMENT OF YELLOW FEVER.

Suggestion that Instructions be given to the People
in Infected Cities.

[A Letter addressed to Dr. R. W. Mitchell, Member of the
National Board of Health, Memphis.]

Dear Sir:

The National Board of Health having given me some marks of their favor in offering to place me on the reserved list of their sanitary inspectors, I wrote to the president and to several of the board a communication, in which I endeavored to invite their attention to the importance of *treatment* and *management* at the *inception* of cases of yellow fever, regarding these as of almost equal utility as the decision of questions of quarantine, prophylaxis, or even of pathology. I know that you are very much occupied, and am aware also of the fact that numerous physicians feel confident in the success of their treatment of the fever, yet I can not refrain from addressing you also, who are in the midst of an infected city, upon this vital subject. I sincerely believe that thousands of lives could have been and can be saved in the future by a system of management begun at the *very commencement* of an attack of the disease, before the *fever* has had time to produce its direful effects, and by methods simple in their operation, perfectly compatible with reason and common sense, and also based upon a view of the recognized pathology and progress of the disease. Secondly, that where the demand for medical aid is so urgent that physicians can not see all their new cases early, an exception must be made to our usual procedures, and the people must be told what to do before the physician arrives.

I think this is required by the fact, which should be recognized by every one, that death results from the *fever of the first six to ten hours*, whenever this is permitted to go on unchecked, by the failure to use those means which are perfectly adequate to restrain and keep down the temperature. In fair cases in temperate individuals there is no need for any black vomit, albuminuria, suppression of urine, etc.

The treatment is simple, uninjurious, and effective. Belot, of Havana, claims that ninety-five out of one hundred fair cases seen early may be cured, and I agree fully with him. I have practiced with success and have published the plans I refer to.*

*See articles in Charleston Medical Journal and Review for January, 1858, March, 1859, October, 1873, and January, 1877, and President's Address, South Carolina Medical Association, 1872, for the proofs I have given of the efficiency of the method advised. Therefore no pains have been spared to avoid forming hasty conclusions.

Dr. C. W. Horsey adopted them in the fever of Fernandina (1878), and other physicians have done the same. I issued a brief circular to medical officers and boards of health last summer, and it was also copied in several medical journals, as I could not restrain myself then and now from expressing opinions which long and repeated experience had convinced me of the correctness of; and if this be true, I considered it a duty to urge them, certainly upon the younger and more inexperienced members of the profession; specially upon those who admit that they are not guided by any fixed rules satisfactory to themselves. Many of these, brave spirits as they were, were flocking to offer their assistance, often without any personal experience of the disease.

The treatment consists:

1. In sponging the head, hands, and arms assiduously with ice-cold water at the *very commencement* of the attack, not losing an hour. This is to be repeated at intervals whenever the temperature rises, cold ice-water being quite capable of reducing the temperature. Towels soaked in ice-water are preferable to sponging. Fifteen to twenty minutes generally suffice for each application, its necessity being determined by the existence of pyrexia. Few perform this simple but *essential* procedure as they should do. Prof. T. O. Summers, of Nashville, was perfectly correct when he stated recently that "cold water is the remedy in yellow fever."

2. Give immediately and but once Blair's calomel gr. xx, quinine gr. xx, diminishing the dose for children. The quinine may not be essential, though I greatly favor its use for several reasons, and have never seen it produce a single ill effect.

3. Follow in three or four hours with a saline cathartic, which is cooling and antiphlogistic.

4. Apply mustard plasters to the entire abdomen and place the feet in a hot mustard foot-bath from the beginning of the attack, and repeat them frequently. These may be followed by a blister to the abdomen (which certainly does no injury) in case there is nausea or irritability of the stomach.

5. After the salts have acted give an effervescent or antacid mixture of this nature (which was much used by the late Prof. E. Geddings, of this city).

R Acetate of potash.....	3 j;
Bicarb. of potash	3 j;
Morphia.....	gr. j;
Water	3 vj.

A teaspoonful to a dessertspoonful every

two or three hours to quiet irritation and act as a mild antacid and diuretic.

No other treatment or active measures are required, save the continuance of the cold water and pellets of ice given internally, if desired. The administration of food must be watched with the greatest care throughout the disease.

Doubtless a few drops of tinct. of aconite might prove serviceable, added to the mixture above mentioned or given separately, if the pulse or temperature is with difficulty reduced.

To yourself, an experienced physician, known to the whole country, I write with great deference; but I can not resist the force of my convictions. I only submit with the greatest respect what I know to be an efficient method after using it, and *noting every case and its results at every visit* during several epidemics, and when in charge for seven years of the marine hospital in this city. I have for seventeen years been physician and surgeon to hospitals. Some of your associates may find it useful, and I think the people should be publicly instructed what to do when in such need, and when *precious time is lost* by the enforced absence of their medical attendants.

Respectfully yours,

F. PEYRE PORCHER, M. D.,
Prof. in Med. Col. of State of South Carolina,
Ex-president of State Med. Assoc'n.

[The above letter, we learn, has been referred by Dr. Mitchell to the Shelby County Medical Society.]

Correspondence.

LETTER FROM CORK.

My Dear News:

On the night of the 3d Dr. Southey and I, under the protection of the handsome and huge MacCormac, who was provided with an entire coach by the railway officials, left London on the Wild Irishman, as the fast night-train is called, and by 4 A. M. we were at Hollyhead and on the steamer. The sea was smooth, and in a few hours we were in Kingstown, and in a little while we dashed into Dublin on an express-train. A return of my malarial trouble disabled me from seeing the sights of the city and of enjoying the proffered hospitality of kind friends; but after several hours' rest I was able to join

the expedition to Bohernabruna, where Dr. Mapother, the retiring president, gave the annual dinner to the officers of the Royal College of Surgeons. We were a party of thirty, and rode the ten miles to the rendezvous in comfortable drags, from which we enjoyed the lovely scenery, clothed in the innumerable shades of peerless Irish verdure. The weather was perfect, the company congenial, the horses spirited, and we bowled along the smooth turnpike at a lively pace.

Monsieur Charcot, the metalo-therapeutic Frenchman, and I were the only foreigners in the party. Charcot's reminiscences of the Paris siege were very interesting. Rats, he says, he could never bring himself to eat. Cats he did not like. Horse he found very good, and donkey was delicious. The meanest meat he ate was elephant, which was tough and strong, no matter how it was cooked; and hippopotamus was no better. You recollect that food became so scarce that the animals of the zoölogical and acclimatization gardens were killed for food.

Bohernabruna is a monastery in the Irish hills, and the view from it is magnificent. It is the favorite club dining-place with the Dubloons (will you accept the word?) The place is not imposing in its architecture, being a lot of one-story thatched buildings. The monks are not a bad-looking lot; and if they are as perfect in their piety as they are in their cuisine, their useful lives in this world must be supplemented by a delightful one in the next. We dined in a long summer-house, looking out upon a lovely lawn, and far away we saw the valleys and mountains of Erin. Turtle soup and venison and flappers (young wild ducks) and Westphalia ham and capons, with venerable Madeira and Burgundy and Champagne and Port, and luscious peaches and grapes and greengages and melons were among the earlier luxuries. After these came the Irish whisky and kettles of boiling water and lemons and loaf sugar and speeches and songs and yarns and jokes, and cigars and pipes to those who liked tobacco. Need I say it was jolly? It is worth a trip across the Atlantic to go to an Irish doctor's dinner. Thackeray said the same thing of eating the canvas-back duck. I have tried both, and the Irish dinner is the better. At the table were grandfathers beyond seventy and gay fellows far under thirty; but there was no stiffness or reserve, and the old and young, in amiable humor, mixed and commingled like the mellow whisky and hot water, the other components

of the punch making a social compound as generous and genial as the famous national drink, to which much of the poetry and wit of old Ireland is no doubt due.

Thanks to the courtesy of Dr. McNaughton Jones, I have a comfortable room at the Imperial Hotel. Cork is so crowded that some gentlemen have found it impossible to get quarters, and have left the city. There are about five hundred doctors attending the meeting, and among them are many foreigners. America is represented by Sayre, Seguin, and Baird, of New York, Hodgins, of St. Louis, Byford, of Chicago, and your little partner. There are others here from the States whom I do not know. Charcot, of Paris, is the most distinguished foreigner here. I do not count the Americans foreigners.

I was this evening at the dinner of the president and officers of the British Medical Association. It was a company of fifty, and was an elegant affair. After it the president held a reception at Queen's College, and the beauty and fashion of Cork were there in great force. The Irish women are superb in color and form, and the men are noble fellows. I believe that I never saw any thing so brilliantly beautiful as this reception. The spacious college-grounds and halls were illuminated by the lime light, the Joblochhoff lamp being used. The ground-glass shades of the lamp softened the electric light. I am glad to say that the report of this light being unbecoming to beauty is utterly incorrect. In truth it is kinder than gas or candles or sunlight to the complexions of nature's most perfect work. Many of these ladies I had already seen by these other lights, and I assure you they were most beautiful in the lime light. Though the buildings and grounds are spacious, the two thousand daughters and sons of Adam assembled there packed the place closely, and some hypercritical people complained of the crowd; but in such a lovely and charming company as this I don't mind being squeezed.

The British Medical Association reminds one strikingly of our own. The members are, as a rule, better dressed than ours upon such occasions, and they have better complexions; but they do not speak so well as their American cousins, and in size and good looks I do not think they have any advantage over us. In intellectuality of looks, like our own national medical body, they come out very strong, and there is no comparison between these two bodies and the English Parliament and the American Congress.

The doctors discount the law-makers decidedly.

The exhibition of drugs and instruments is quite inferior to ours in point of size. Two of our best American houses are handsomely represented—Parke, Davis & Co. and Wyeth Bros. Parke, Davis & Co.'s capsules attract especial attention, and are quite a novelty in Great Britain. Their anal as well as oral capsules are an excellent invention. Wyeth's dialysed iron is preferred to all others in Cork, as it is in Dublin and London; and when I inquired of Corbyn, Stacy & Co., of London, who have a good exhibition of drugs at the Cork meeting, for a specimen of their own dialysed iron, they gave me a specimen of Wyeth's, stating that it is chiefly prescribed in London. The dialysed opium of Corbyn, Stacy & Co. is quite worth a trial. In taste it is not the least unpleasant. I inclose what its manufacturers say of it:

Liquor Opii Dialysatus.—This preparation of opium is obtained, as its name implies, by *dialysis*. It is a pale liquid, with a slight taste, from which the disagreeable, heavy, characteristic odor of opium is absent. It contains all the crystalline active principles of opium in the same relative proportions as the crude drug. It is quite free from extractive, resinous, waxy, and caoutchouc substances, and retains only a minimum quantity of coloring matter. The proportion of morphia, and indeed of the opium alkaloids generally, is constant, that of the former being equal to four grains of morphia hydrochlorate in the fluid ounce. The dose is therefore the same as that of tincture of opium, liquid extract of opium, etc. In continued use it is found that this preparation does not produce constipation, headache, or stomach disturbance, and patients exhibit a tolerance not shown to any other preparation of opium.

The hospitality of our Irish kinsfolk is unbounded, and we are invited to more breakfasts, luncheons, dinners, receptions, and garden parties than any mortal man could go through with and live. We are given the freedom of the clubs, picture-galleries, etc.; and an experienced traveler is always delighted to get into a club in this country if he has occasion to order a meal, for the hotels in Her Majesty's dominions are quite inferior to those in America.

Dr. O'Conner, of Cork, a genial and scholarly gentleman, is the president elect. While I have never been impressed with the truth of Boucicault's well-known alliteration, that God is good to the Irish, I can truly declare the Irish are good to their guests.

The weather is cool and showery, and the farmers of Ireland—as is always the case with farmers, however—are complaining of the backward and bad season.

L. P. YANDELL.
CORK CLUB, CORK, August 6, 1879.

TREATMENT OF CHOLERA INFANTUM.

To the Editors of the Louisville Medical News:

Cholera infantum is a disease not confined to cities and towns, but is frequently met with in country places during the hot season of the year. In the latter situations I have seen and treated several cases of the disease successfully with the following treatment:

From half a grain to a grain or more of calomel, according to the age of the child, is combined with a little prepared or precipitated chalk and pulverized loaf sugar, and given every two hours until vomiting ceases and the fever abates, which may occur within twenty-four hours, but sometimes later. The alvine dejections are also apt to become less frequent and more natural in appearance under this treatment. The powder may be placed in a spoon and wet with water, or it may be put into the child's mouth in a dry state. If the child immediately reject the medicine, the dose should be repeated within a few minutes, when it will be apt to be retained. As adjuvants, rubefacient applications of ground mustard diluted with wheat flour may be applied to the epigastrium and extremities till redness of the skin is produced, when they may be removed and applied again at intervals of several hours, if occasion requires. Cataplasms of bruised mint and various spices may also be used. The feet and legs should be bathed in warm water made stimulating with mustard, red pepper, or salt, whenever found cold or cool. An occasional warm or tepid bath to the whole surface of the body may prove beneficial; also cold sponging of the head, face, and trunk when the heat is extreme. Should manifestations of cerebral disease be present not dependent upon the irritation of teething, the calomel may be increased, with cups or leeches to the temples, and the cold douche upon the head. If the child is teething and the gums swollen, they should be freely scarified. I have known very threatening symptoms of cerebral disease relieved within a few minutes after scarifying the gums. To relieve the thirst, which is very great in this disease, a limited quantity of cold water may frequently be given. If too freely allowed, it will be immediately rejected by the stomach, and do but little or no good. I have seen a child retain a single teaspoonful of water with much apparent benefit, when a greater quantity was constantly rejected. Gum arabic may be dissolved in the water when emaciation is rapid. The same caution is necessary with

regard to the child's diet. If too freely indulged, vomiting will continue. The mother should therefore restrain her child from nursing too much at a time, which it is inclined to do on account of the great thirst. If the child be weaned, fresh cow's milk diluted with a little cold water, to which may be added a little loaf sugar, may be given in small quantities at a time, and repeated as the stomach will bear it. Lime-water may sometimes be added to the milk with benefit. Small quantities of chicken-water sometimes prove grateful to the little patient. Still later in the disease arrow-root prepared with milk is a suitable and valuable diet. After the subsidence of vomiting and fever, should diarrhea continue, it will probably yield to chalk-mixture, to which is added a little pulverized catechu or kino and cinnamon-bark, or the officinal tincture of catechu may be added to the chalk-mixture, if the stimulus of the alcohol be not contra-indicated. If this fails to control the bowels, a little laudanum, according to the age of the child, may be added to the mixture. Small doses of acetate of lead and Dover's powder with pulverized cinnamon is also a good prescription in such cases. Blackberry wine weakened with gum-water and sweetened with sugar may be given to the child occasionally, and is good treatment at this stage of the disease. Should there be decided remission of the symptoms in any case, I would give quinine during the remission; but in the cases of the disease I have seen I regard the treatment with calomel of paramount importance.

WILLIAM SPEIR, M. D.

MONROE COUNTY, GA.

Books and Pamphlets.

NOTES OF HOSPITAL AND PRIVATE PRACTICE.
By Henry Gibbons, sr., M. D., San Francisco.

EXCISION OF THE KNEE-JOINT, WITH CASES. By Joseph Eastman, M. D. Reprint from Transactions of Indiana State Medical Society. Indianapolis.

THE METRIC SYSTEM. By J. F. Baldwin, M. D., Columbus, Ohio, Professor of Anatomy in Columbus Medical College. Remarks made before the Ohio State Medical Society. Published by request of the Society.

MATERIA MEDICA AND THERAPEUTICS: VEGETABLE KINGDOM. By Chas. D. F. Phillips, M. D., F. R. C. S. E., Lecturer on Materia Medica, Westminster Hospital, London. Edited and adapted to the United States Pharmacopoeia by Henry G. Piffard, A. M., M. D., New York. New York: Wm. Wood & Co., 27 Great Jones Street, New York.

PROCEEDINGS OF THE LOUISIANA STATE MEDICAL ASSOCIATION at its second meeting, held in New Orleans April 9, 10, and 11, 1879. New Orleans.

TREATMENT OF YELLOW FEVER. By Jos. Jones, M. D., Professor of Chemistry and Clinical Medicine, Medical Department of University of Louisiana, etc. Extracts from a Clinical Lecture. Reported from the New Orleans Med. and Surg. Journal, New Orleans.

A NEW MOVABLE PAPER BRACE FOR THE TREATMENT OF CARIES OF THE SPINE AND OF LATERAL CURVATURE, BY THE INSERTION OF A RUBBER BAND TO EXERT PRESSURE OVER THE DEFORMITY. By Ap. Morgan Vance, M. D., Junior Assistant, Hospital for Ruptured and Crippled, New York. Read before the New York County Medical Society, June 28, 1879. With the discussion before the Society by Drs. Frank H. Hamilton, Lewis A. Sayre, John A. Wyeth, and V. P. Gibney. Reprint from Hospital Gazette, July 19, 1879.

The Louisville Medical News.

Back numbers of the LOUISVILLE MEDICAL NEWS, with several exceptions, can be supplied. The price is six cents per copy, postpaid. Persons wishing to complete their files of the News would do well to order missing numbers early, as but few copies remain of several of the issues.

A limited number of bound volumes of the News is in stock. These can be obtained at the following prices: The News for 1876, Vols. I and II bound together, \$3.50; 1877, Vols. III and IV bound together, and 1878, Vols. V and VI bound together, each \$4.50, or the three years for \$11.00, postpaid.

The bound volumes of the News contain each six hundred and fifty pages filled with much matter of permanent value.

Address the publishers,

JOHN P. MORTON & COMPANY,
Louisville.

Miscellany.

CONSERVATISM IN SURGERY.—So much has been said for and against the germ-theory and the Lister practice that is built thereon that we would hesitate, for a while, at least, to copy into these pages matter bearing on the subject. We are induced, however, to make the following extracts from the address on surgery before the British Medical Association three weeks ago, because its author, Mr. Savory, is a surgeon of worldwide reputation, and the field of his observations—St. Bartholomew Hospital, in London—is one of the most famous institutions of its kind in Great Britain. We are indebted to Dr. L. P. Yandell, who, it will be seen by his letter in this number, was in attendance at the meeting of the Association in Cork, for an advance copy of Mr. Savory's address. It will be seen that Mr. Savory denies in toto that modern antiseptic surgery, except in so far as it conduces to cleanliness, has surpassed the results

of practice based on formerly recognized principles of surgery, and that in some of its appliances it retards rather than accelerates cure. He says:

If the germ-theory in its past and present state contained the truth, the whole truth, and nothing but the truth, what possible explanation is to be given of that which is witnessed daily and hourly—the kindly repair of exposed wounds? I will venture to say that any one who had no clinical experience, but who accepted all that he could read on the germ-theory, would inevitably come to the conclusion that to expose any wound unguarded to the atmosphere would be to seal the fate of a patient. But what is the fact? Who requires to be informed? Then it is not clear that the whole truth has not yet been told. Nay, further still, not only are exposed or unguarded wounds constantly to be seen in healthy process of repair, covered with secretion which presents no evidence of putrefaction, but wounds are sometimes seen bathed in fluid which if injected into the blood would forthwith produce all the effects of blood-poisoning in the most intense degree. And yet further, a collection of matter large enough and poisonous enough to destroy a host of persons, if passed into the blood, may remain pent up in the body for a long period without any visible disturbance of the general health. It is obvious, then, that the contact of wounds and raw surfaces with even putrefying fluids is not always enough, for this is seen continually without evil effects. They must be transmitted to the blood. . . .

The history of our present knowledge of blood-poisoning is an interesting and instructive one. At first, all attention being naturally concentrated on the changes wrought in the body, the origin and cause of the affection was sought only within those limits. Then when the truth began to dawn that the actual poison was derived from without, the pendulum of opinion, according to its wont, swung at once to the opposite extreme; and I venture to think that of late the opposite error has prevailed, of regarding only the conditions under which the poison is formed, and losing sight altogether of the conditions under which it affects the blood.

THE PRACTICE AT ST. BARTHOLOMEW'S HOSPITAL.—A splendid struggle now goes on throughout England, Europe, and the civilized world, to reduce the mortality from this cause after operations to the lowest possible terms. Beyond all doubt the gain to human life and health from this has already been immense. And now by what particular means have these results been achieved? Hitherto, I say advisedly, the best results by the simplest means. Forgive me if I refer again to the records of my own hospital—St. Bartholomew's—for evidence of this responsible statement. The results which they testify have not been on the whole surpassed. Now, considering all the various details in the treatment of wounds and the management of cases after operation, the practice of no two different surgeons of the staff is precisely alike. Each one of the surgeons perhaps carries out certain details in some way different from the others, but all aim at the most scrupulous cleanliness. We strive to secure this by all possible means. We watch very carefully the actual state of wounds, and we use very freely antiseptics of various kinds. And with cleanliness we attach, for the most part, the highest importance to rest. We are careful to disturb wounds during the process of repair as little as possible. Cleanliness in its surgical sense and rest

in its physiological sense may be said to be the leading aims. But we are by no means satisfied with directing attention only to wounds. We are most jealous of the state of the atmosphere of our wards. We keep the air as pure as possible. We have no particular or patent system of ventilation. Ventilation is effected only by open windows and large chimneys. But we are proud of the habitual state of our wards, even when most closed, as during the night-time. Lastly, we attach the highest importance to the state of health and condition of our patient before operation; and never, when we have choice and opportunity, do we inflict an injury without previous inquiry in this direction very fully carried out. Well, what of all this? will perhaps be said. Of course all this is done every where. So much the better. The results, you see, are not due to any thing beyond the observance of the recognized principles of surgery.

LISTER'S PLAN MAY DELAY THE HEALING OF WOUNDS.—I pass on to speak of that particular plan of practice which aims at unconditional security—the plan the purpose of which is to exclude all risk of blood infection by the rigid exclusion of living germs; notably of that particular method which has been introduced by Lister, and at present known every where as Lister's method. The St. Bartholomew Hospital statistics, to which I have already referred, I consider justify me in the conviction that hitherto the best results have been achieved by the simpler method. I say I know of no results from Lister's method like those which I have given. While the adoption of Lister's plan has effected a vast improvement in the death rate of a particular institution, the results obtained by it are still far below those which have been obtained by other methods. It is easy to understand why the most enthusiastic reports in its favor come from those places where the sanitary conditions are the worst. I repeat my conviction that when the plan is accurately carried out as a rule it necessarily delays the repair of wounds. Are those who can tell of wonderful results from this method in a position to state that none equal to them have been accomplished in other and more simple ways? Bryant has well said, "the publication of isolated cases, however good, proves nothing, whereas the withholding of the whole suggests much." But does blood-poisoning ever occur in this practice? In point of fact it does from time to time occur, and sometimes proves fatal. Every one is aware, of course, of the answer which is given to this, that it is due to the mode of dressing being imperfectly carried out. But this catastrophe does still not unfrequently occur in skillful and experienced hands in the practice of excellent surgeons, enthusiasts in this method. If the plan be only ideally perfect, and liable, in spite of such care and dexterity, to fail in practice, it still misses its aim. Then, for me, at least, and for the reasons I have given, the constant and prolonged employment of drainage-tubes is a serious objection. I am convinced, I repeat, that they too often prove sources of local and general irritation. Thus I have seen a large chronic abscess opened and dressed carefully with the rigid precautions of Lister's method. I have seen the patient day after day but little disturbed, with a temperature of one or perhaps two degrees above the normal, and then at the end of a week or nine or ten days I have seen all the dressing hitherto applied suddenly removed, the drainage-tube withdrawn, and a common bread-poultice applied to the now fully exposed surface. The result has been that the temperature has quickly fallen to the normal

point; and my belief is that in more than one instance the reduction of temperature was mainly due to the removal of the tube, which, as a foreign body in the wound, was a source of irritation.

DR. SAYRE'S SPEECH AT THE DINNER OF THE BRITISH MEDICAL ASSOCIATION IN CORK. Dr. Sayre said he was called on to respond to the toast of their foreign guests, and he almost felt that to be an insult to him. [Laughter and applause.] He was not a foreigner there. [Renewed laughter.] They had treated him so warmly on the present and last occasion on which he was among them, and he remembered so well their hospitality and friendship, that he, at all events, could not look upon himself as a foreigner there. [Hear, hear.] They in America felt highly complimented by the British Medical Association holding their meeting that year in Cork. They kind of looked upon it as if they had come half way to meet them. [Laughter.] They all knew that that beautiful island was the first land which met their gaze after leaving the far distant shore of America, and as they entered the beautiful harbor, which increased in beauty until they came to that most beautiful of commercial towns—Queenstown—which rose tier above tier, and which possessed all the beauties of a fashionable watering-place. He was delighted to meet so many of his medical brethren, and he could not help remarking that men, women, and children should at some time come under the critical observation of the family physician. Therefore, in his judgment, that profession held the power which, if they only knew it and how to use it as they ought by the introduction of social friendship in the castle or in the cabin, they had a great power in their hands for raising the elements of material culture, so as to bring a bond of union between all nations of the earth. [Applause.] Might he not then fondly hope that during next year, when the American Medical Association meet in New York on the 1st of June, they would have many visitors from Europe, who would find awaiting them all the luxuries of an American climate and sunshine [laughter], when they would cordially welcome them to take the bronchial disturbances out of their throats and make them young and vigorous boys. [Renewed laughter and applause.] As the president of the Medical Association of America he then tendered to all—not alone the members of the British Medical Association, but the representative men of all medical associations in Europe. [Loud applause.]

EXTIRPATION OF THE KIDNEY.—Extract from Dr. J. Marion Sims's Berlin letter, in New York Medical Record:

You remember how we were all electrified about ten years ago with the news that the daring, dashing Simon had successfully extirpated the kidney. I do not know how often Simon's operation had been performed, but at home I know that it was done successfully by the late Dr. Gilmore, of Mobile, and by our own George C. Peters. It has remained for Dr. Martin, of Berlin (son of the late Prof. Edward Martin), to open up a new field for and a new method of doing this operation. He has now extirpated the kidney five times—four times successfully. And, strange to say, he has done the operation for what is known as floating kidney. His operation before Listerism would have been wholly unjustifiable, but now it is justified by its simplicity and success. It is as simple if not as easy as ovariotomy, and quite as successful; certainly so in Martin's hands. I had the satisfaction of assisting at Martin's fifth operation, on the 19th of April. The operation is by abdominal section. Instead of using a single table five feet long for his operations, he has two tables, each about two and a half feet long, end to end, one being a little lower than the other. The patient was chloroformed in her own chamber and then brought into the operating-room and placed on the table with the head to the window. The head was on the lower table, the pelvis on the higher one. The head was placed low with the intention of preventing syncope, the chief source of danger in the use of chloroform. Martin's spray-apparatus is an enormous affair that will work for hours. It was placed six feet or more from the patient, and the spray passed over the assistants and fell on the patient, not in a dense cloud, but in a sort of mist. It seemed to me to be "too much of a good thing."

The operation was begun at 7:50 A. M., and was finished in twenty-six minutes. It was done slowly and with great pains-taking. The incision was begun about two inches above the umbilicus and extended two inches below it. The bleeding from the edges of the abdominal wound was arrested, as in ovariotomy, with hemostatic forceps. The peritoneum was then incised. Some folds of small intestine protruded, and were pushed back and retained by a carbolized sponge probang. The kidney was then pushed to the abdominal incision by pressure on the loin behind, where it was seized with a vul-

sellum and securely held. The peritoneum investing it was then opened longitudinally, and the kidney was enucleated and brought freely into the peritoneal cavity. Some large veins on its surface were ligated, and its attachments, consisting of renal artery, renal vein, and ureter with cellular investments, were tied in sections, just as we secure a broad pedicle in ovariotomy. The pedicle (so to say) of the kidney, necessarily running longitudinally with the kidney about three fingers' width long, was transfixed, and tied with five separate ligatures. The kidney was then neatly dissected away from the pedicle and removed. The pedicle was dropped back into its proper place behind the peritoneum; the peritoneal cavity was then carefully sponged dry, and the external wound was closed with interrupted sutures. The sutures and ligatures were carbolized silk. Antiseptic dressings were applied, and the patient removed to her bed.

I saw her twenty-four hours after the operation. Her pulse, temperature, and expression were good, and I thought she would in all probability recover, but I have since learned from Dr. Martin that she died of peritonitis three days after operation.

All of Dr. Martin's operations have been done for floating kidney. Heretofore we have told our floating-kidney patients that they must accept their condition as incurable. Whether we will readily follow the bold example of Dr. Martin and extirpate floating kidneys hereafter, is a question.

Dr. Martin had his last case under observation four or five months. He had failed to relieve her sufferings in the least. She complained of weight and pain in the kidney, could not work, and yet was obliged to work to make her living. Having exhausted all other means of relief, he proposed the operation, laying before her and her husband its dangers. After due deliberation they determined to have the operation, being greatly encouraged by the fact that Dr. Martin had already performed it successfully four times.

Dr. Martin says that in one of his cases he had great difficulty in completing the operation. The patient was fat, the abdominal walls loaded with fat, and it was necessary to make a transverse incision to the right from the median line. The kidney was then safely removed, but the first dressing of the wound a day or two after operation showed that the transverse incision had failed to unite; it gaped widely open, and for two or three days afterward the liver

could be seen at each dressing moving up and down with each respiratory act. Notwithstanding all this, the patient recovered without a bad symptom.

ENCOURAGE THE SICK.—Among the general suggestions I would respectfully offer are the following: If to superior judgment, skill, and experience possessed by one physician over another, there be added one *habit* to be cultivated for its real practical effect in promoting recovery, it is that of encouraging the sick. Let it be no idle mannerism put on or assumed for effect. It is a "third estate" in physic, and is next in importance only to food and medicines. It is absolutely potent in its plain, positive results; for the sick man, in his weakened state, with his nerves unstrung, is a prey to his diseased imaginations, and depression of spirits greatly diminishes the recuperative energies of the entire organism. He has the "*mens insana, in corpore insano.*" The fancy prone to despondency and inclined to look at the dark side of things has dethroned the judgment; and it is the business of the surgeon to reinstate hope and cheerfulness in his heart, on account of the influences which he knows they have upon the vital functions, the secretions, the appetite, and consequently the power with which he responds to remedial agents. By a pious fraud, if necessary, he should conceal from his patient all useless knowledge respecting his pulse, tongue, the amount of fever, criticalness of condition, so long as the concealment will tend to lift him out of his state of gloom, despondency, or apathy, and will inspire him with anticipations of recovery. The beneficial effects of instilling cheerfulness and hopefulness can not be overestimated, and the sufferer should never be left without some encouraging word. We have all witnessed the sudden and extraordinary revolution produced, even in the desperately sick or wounded, by the anticipation of a furlough and the hope of revisiting their homes. Revived hope, as with the wand of an enchanter, kindles new life in the worn-out frame.—*F. Peyre Porcher, M. D.*

OBSTA PRINCIPIIS.—I have always thought that the Roman maxim *obsta principiis* expressed very finely the proper policy to be pursued by the physician and surgeon in the treatment of diseases or surgical injuries. Among the practical suggestions of a general nature, I wish to give prominence to it as embodying a useful principle; for

many surgeons lose time and worry themselves, or become discouraged, because they fail to manage successfully those who are beyond the reach of art. Early treatment should be regarded almost as a *sine qua non* to success. In other words, lose no time at the beginning of diseases, or as soon as they are presented for treatment. Then you can arrest more easily and completely the spread of symptoms; for the danger of organic changes, of blood-poisoning, of passive congestions, of secondary accumulations, of depression of the nervous centers with its results, increase in a geometrical ratio the longer they are permitted to remain unchecked. The surgeon should never permit a hot, burning fever to continue, if it be possible to prevent it by remedial agents, sedatives, cooling applications, etc.; for when the passive congestion, coma, or delirium follows, it is too late. Let it be remembered that medicines are far more potent in preventing or arresting diseased states than in curing them when fully developed, and it is especially difficult to do away with the ill effects of the secondary results of disease.—*F. Peyre Porcher, M. D.*

CEMENT FOR MENDING GLASS-, EARTHEN-, AND WEDGEWOODWARE.—Take one ounce of Russian isinglass, cut it in small pieces, and bruise well in order to separate the fibers; then add six ounces of warm water, and leave it in a warm place, that the isinglass may dissolve, which will require from twenty-four to forty-eight hours. Evaporate this to about three ounces. Next dissolve one half ounce of mastic in four ounces of alcohol; and when this is ready transfer the isinglass from the evaporating dish to a tin can (an empty ether can will be found convenient); heat both solutions, and add the mastic solution to the isinglass in small quantities at a time, shaking the can violently after each addition. While still hot strain the liquid through muslin cloth, and put up in half-ounce bottles. I have found this cement to be very valuable, and articles—such as mortars, graduates, etc.—mended by it have been in use for years, and in fact seem to be stronger than they were originally.

To remove the odor of musk from the hands or from utensils, it is only necessary to apply a paste formed of pulverized ergot and water. This property of smut rye was accidentally detected by E. Blitz when preparing a compound of the above ingredients.—*Zeitschr. d. Oester. Apoth. Ver.*

Selections.

Chloral Hydrate in Dysentery.—Curci states (*Rundschau*, May, 1879) that he first used chloral for the diarrhea of typhoid fever, and the results were so favorable that he subsequently used it during an epidemic of dysentery in seventeen cases. The results in all were very satisfactory. At first he gave the medicine in combination with chlorate of potash, but subsequently he gave it alone, using as a vehicle tolerably thick barley-water. It was given both by the mouth and enema. When given by the mouth the dose was from one to three grams a day; as an enema, one gram of chloral was dissolved in two hundred grams of barley-water. When given by the mouth, Curci advises that a mild purgative be given first, in order to prepare the bowels for the action of the medicine. It acts not only as a soporific, for which purpose it was first recommended in this disease by Dr. Prince, but also as a sedative, astringent, antispasmodic, and antiseptic. It acts locally also as a coagulant. If it only lessened the pain by producing sleep, it would be any thing but a desirable remedy, as the disease would be progressing while the patient and physician were lulled into a false security. It has a very decided action, however, aside from this through its action on the cerebro-spinal nervous system as well as on the sympathetic, the nerves being very much affected in dysentery. The discharge will be lessened, and the formation of flatus, a source of so much pain in this disease, prevented.

With reference to the local action of chloral, he thinks that a part is absorbed in the intestinal canal and a part is carried on by the peristaltic movements into the large intestine. After two or three grams have been taken (in some mucilaginous vehicle) there is first an increase in the peristaltic movements of the intestines, which is followed by diminution in the sensibility and in the movements of the breasts. This effect is due to the action on the sympathetic, there being first an excitation and then a paralysis produced. In this way the chloral lessens both the pain and the discharge. It acts furthermore by coagulating the albumen, destroying the poison (?) of the disease, and promoting the healing process.

In conclusion, the writer reviews the action of other drugs hitherto used in dysentery, and advances some rather startling views. He thinks that purgatives given in the early stages of the disease are the only medicines comparable in value to chloral. He condemns in emphatic terms antiphlogistic remedies, as well as the use of opiates and astringents. Ipecac, he thinks, is also useless unless given in emetic doses, and is of doubtful efficacy even then.—*Virginia Medical Monthly.*

Treatment of Hysteria.—When called to a paroxysm, the first indication is to remove any tight clothing about the patient, and to administer anti-spasmodics if the patient can swallow, such as gelsemuin, lobelia, musk, hyoscyamus, valerian, cannabis indica, camphor, and hydrate of chloral. But if the paroxysms are severe and the patient unable to swallow, I have made use of sulphate of morphia, one sixteenth of a grain; fluid extract of gelsemuin, three drops; add half a teaspoonful of water; mix, and with a hypodermic syringe inject about half of it in right arm. This will stop the paroxysm at once. More recently I stop spasms by a hypodermic

injection of clear cold water. It has never failed me, and, more than that, it will arrest *immediately* any kind of spasm or pain in almost any form of disease. If trismus should occur in any case, pour cold water on the head and inject into the rectum about four ounces of a strong infusion of lobelia-seed, ipecac, and gelsemuin. This will be a good-bye to trismus in fifteen minutes, as it will relax the entire system. After the paroxysm the real cause of the disease must be ascertained, and this must be removed. The physician must also gain the confidence of the patient and friends, and thus wield an influence over the mind of the patient, which is very important. The nervous system must be closely examined, especially the spine, and if any irritation or congestion is found it must be removed. It is also very important to promote healthy digestion, as sometimes the stomach is very irritable, and if overloaded or indigestible food is taken the spasms are likely to occur. Every individual case must be studied and the indications promptly met.—Dr. John A. Henning, in *Chicago Medical Times*.

The Treatment of Excitement in Asylum Practice.—J. A. Campbell, M. D., in *London Lancet*, concludes an interesting paper with the following summary of the treatment of excitement in asylum practice:

That in excitement sedative treatment during the day is at times necessary to render patients manageable. I however think that whenever used for any length of time the patient remains somewhat longer in a stupid or mentally clouded state after the excitement passes off.

That in acutely excited patients, where exercise does not cause sleep at night, it is well to induce it artificially, so as to prevent injury to health from exhaustion; but this form of treatment should only be used for short periods.

That I have found chloral, given as described, a most certain sleep-producer, and harmless.

That with excitement and sleeplessness in chronic patients it is at times necessary for the quiet of an asylum to give sleep-producers, but the necessity may be much diminished by open-air exercise and employment.

That careful, frequently-repeated feeding is as necessary in the treatment of acute excitement as in that of any other acute and exhausting disease; that its neglect may induce dementia.

That in the vast majority of cases of acute excitement prolonged exercise in the open air does away with the necessity for sedative treatment or the use of sleep-producers, and in a great measure obviates recourse to seclusion, but involves extra supervision and more attendants.

That after a six years' use of bromide of potassium in epilepsy I am in a position to corroborate the evidence of others as to its efficacy in the treatment of epilepsy, by reducing the number of fits and allaying the irritability almost always concomitant with epilepsy. The arranging the dose to suit the case, and at intervals examining the patient as in any other form of treatment, must not be overlooked.

That the morning shower-bath is an important auxiliary in the treatment of excitement in the young of both sexes.

That in some cases where excitement appears due to ovarian irritation blistering over the ovaries appears to do good, and that this subject is worthy of attention.